

## WHAT IS CLAIMED

1. A method for use in composing two or more compressed video input streams into at least one compressed output stream of a composed layout, the method comprising:

5            converting each one of the two or more compressed video input streams into one or more sub-encoded stream, wherein each one of the sub-encoded streams is associated with a segment in the at least one compressed output stream of the composed layout;

             manipulating the one or more sub-encoded streams according to the location  
10            of its associated segment in the composed layout of the compressed output stream; and

             transferring the manipulated one or more sub-encoded streams as the compressed output stream.

15    2. The method of claim 1, further comprising:

             transferring the one or more sub-encoded streams of each one of the two or more compressed video input streams to a sub-encoded common interface;  
             getting from the sub-encoded common interface the one or more sub-encoded streams that are associated with the output stream.

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3. The method of claim 1, wherein converting each one of the two or more compressed video input streams into one or more sub-encoded stream further comprises changing the resolution of sub-encoded stream.

4. The method of claim 1, wherein converting each one of the two or more compressed video input streams into one or more sub-encoded stream is independent of the location of the associated segment of the sub-encoded stream in the compressed  
5 output stream.

5. The method of claim 1, wherein converting each one of the two or more compressed video input streams into one or more sub-encoded streams is accomplished assuming the associated segment of the sub-encoded stream is located in the top left  
10 corner of the composed layout.

6. The method of claim 1, wherein the compressed output stream conforms to the H.264 standard.

15 7. The method of claim 1, wherein the compressed output stream conforms to the MPEG 4 part 10 standard.

8. The method of claim 1, wherein the one or more sub-encoded streams are not QCIF compliant.  
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9. The methods of claim 6 or 7, further comprising the step of combining two or more segments into one slice-group.

10. The method of claim 9, wherein the two or more segments that are combined into one slice-group do not share a raster scan line.

11. The method of claim 1, wherein the compressed output stream conforms to a standard selected from a group consisting of H.263, MPEG 1, MPEG 2 and MPEG 4.

12. A method for use in composing sub-encoded video input streams from two or more endpoint into at least one compressed output stream of a composed layout, the method comprising:

10 receiving the sub-encoded video input streams from two or more endpoints;  
associating each one of the two or more sub-encoded video input streams to a segment in the composed layout;  
manipulating the received sub-encoded video input streams from two or more endpoint according to the location of its associated segment in the  
15 composed layout of the compressed output stream; and  
transferring the manipulated two or more sub-encoded streams as the compressed output stream.

13. The method of claim 12, wherein the compressed output stream conforms to a standard selected from a group consisting of H.263, MPEG 1, MPEG 2 and MPEG 4.

5 14. The method of claim 12, wherein the compressed output stream conforms to the H.264 standard.

15. The method of claim 12, wherein the compressed output stream conforms to the MPEG 4 part 10 standard.

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16. The method of claim 12, wherein the one or more sub-encoded streams are not QCIF compliant.

17. A system comprising:

15 at least two input modules being operative to

receive a compressed input stream; and

deliver one or more sub-encoded streams;

at least one output module being operative to

receive two or more sub-encoded streams; and

20 deliver a compressed output stream of a composed layout;

wherein the output module manipulates location-dependent information in the sub-encoded stream according to its location in the composed layout.

18. The system of claim 17, wherein the compressed output stream conforms to the H.264 standard.

5 19. The system of claim 17, wherein the compressed output stream conforms to the MPEG 4 part 10 standard.

20. The system of claim 17, wherein the compressed output stream conforms to a standard selected from a group consisting of H.263, MPEG 1, MPEG 2 and MPEG 4.

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21. The system of claim 17, wherein the one or more sub-encoded streams are not QCIF compliant.

22. The system of claim 17, further comprising:

15 a compressed video common interface; and

a sub-encoded common interface;

wherein the compressed video common interface is operative to carry the

compressed input streams and the compressed output stream and wherein

the sub-encoded common interface is operative to carry the sub-encoded

20 streams between the input modules and the output module.